

1 1. A composition for a barrier coating to protect a substrate. the
2 composition comprising
3 a first later of a first parylene polymer over a surface portion of the substrate,
4 a second transition layer of a mixture of the first parylene polymer and a
5 second parylene polymer on said first layer, and
6 a third layer of only said second parylene polymer on said graded second
7 layer.

1 2. The composition in accordance with claim 1 wherein said transition
2 layer is a graded layer.

1 3. The composition in accordance with claim 2 wherein said first and
2 second parylene polymers are selected from parylene C, D, and N.

1 4. The composition in accordance with claim 1 wherein said first and
2 second parylene polymers are annealed.

1 5. The composition in accordance with claim 1 further comprising an
2 adhesion promoting layer between said first layer and the substrate.

1 6. The composition in accordance with claim 5 wherein said transition
2 layer is a graded layer.

1 7. The composition in accordance with claim 6 wherein said first
2 parylene polymer is parylene C and said second parylene polymer is parylene D.

1 8. The composition in accordance with claim 7 wherein said adhesion
2 promoting layer is composed of the oxide form of a metal or metalloid.

1 9. The composition in accordance with claim 8 wherein said metal is
2 aluminum.